

## **CURRICULUM VITAE**

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### **EDUCATIONAL EXPERIENCE:**

1969 University of Aberdeen, Aberdeen, Scotland (Summer)

1969-1970 Lower Columbia Community College, Longview, WA

1970-1973 Seattle University, Seattle, WA  
Bachelor of Science in Nursing

1974-1975 University of Washington, School of Nursing, Seattle, WA  
Master of Nursing

1977-1981 University of Illinois at the Medical Center, Chicago, IL  
Department of Physiology and Biophysics  
Doctor of Philosophy

### **PROFESSIONAL EXPERIENCE:**

1973-1974 Charge Nurse, St. Johns Hospital, Longview, WA

1975-1977 Research Associate on "Nursing Interventions in Problems of Tube Feeding"  
NIH Grant NU00523, Barbara Walike Hansen, Ph.D., Principal Investigator;  
Department of Physiological Nursing, University of Washington, Seattle.

1977-1981 Teaching Assistant, Department of Physiology and Biophysics, University of  
Illinois at the Medical Center, Chicago, IL

1978-1981 Staff Nurse (part-time), Johnston R. Bowman Health Care Facility for the  
Elderly, Rush-St. Luke's-Presbyterian Medical Center, Chicago, IL

1986 Visiting Assistant Professor, University of Arizona, Tucson, AZ (June)

1981-present Department of Biobehavioral Nursing & Health Systems, University of  
Washington, School of Nursing, Seattle, WA  
1981-1986 Assistant Professor  
1986-1990 Associate Professor  
July 1990 Professor

1996-present Chairperson, Department of Biobehavioral Nursing & Health Systems

1996 Visiting Professor, Department of Obstetrics and Gynecological Nursing, Chiang Mai  
University, Chiang Mai, Thailand (June-July)

1999- Adjunct Professor, Division of Gastroenterology, School of Medicine, University of Washington  
2001- Corbally Endowed Professor for Public Service, University of Washington

#### **PUBLICATIONS:**

1. **Heitkemper MM**, Hanson R, & Walike BC. (1977) Effects of rate and volume of tube feeding. Communicating Nursing Research, MV. Batey (ed.) WICHE, Boulder, CO. 10:71-89.
2. Kagawa-Busby KS, **Heitkemper MM**, Hansen BC, Hanson RL, & Vanderburg VV. (1980) Effects of diet temperature on tolerance of enteral feeding. Nursing Research 29:276-280.
3. **Heitkemper MM**, Martin DL, Hansen BC, Hanson R, & Vanderburg, V. (1981) Rate and volume of intermittent enteral feeding administration. Journal of Parenteral and Enteral Nutrition 5:125-130.
4. **Heitkemper MM** & Marotta SF. (1983) Development of neurotransmitter enzyme activity in the rat gastrointestinal tract. American Journal of Physiology 244:G58-G64.
5. **Heitkemper MM** & Hansen BC. (1984) Gastric relaxation prior to enteral feeding. Journal of Parenteral and Enteral Nutrition 8:682-684.
6. **Heitkemper MM** & Marotta SF. (1985) Role of diet in modifying gastrointestinal neurotransmitter enzyme activities. Nursing Research 34:19-23.
7. **Heitkemper MM** & Williams S. (1985) Prevent problems caused by enteral feeding. Journal of Gerontological Nursing 11 25-30.
8. **Heitkemper MM** & Marotta SF. (1985) Stress and the developmental activity of gastrointestinal neurotransmitter enzymes. Research Communications in Psychology, Psychiatry and Behavior 10:241-259.
9. **Heitkemper MM** & Shaver J. (1986) Effect of pentagastrin on neurotransmitter enzyme activities in the rat gastrointestinal tract. American Journal of Physiology 250:G546-G552.
10. **Heitkemper MM** & Marotta SF. (1986) Effects of corticosterone and metyrapone on gastrointestinal neurotransmitter enzyme activities. Research Communication in Chemical Pathology and Pharmacology 54:47-64.
11. **Heitkemper MM** & Shaver J. (1987) Adrenalectomy and pentagastrin effects on gastrointestinal cholinergic enzyme activities. Biology of the Neonate 51:277-285.
12. Shaver J, Woods N, Wolf-Wilets V, & **Heitkemper MM**. 1987) Menstrual experiences in dysmenorrheic and non-dysmenorrheic women. Western Journal of Nursing Research 9:423-439.
13. **Heitkemper MM** & Bond EF. (1988) Fluid and electrolytes: Assessment and interventions. Journal of Enterostomal Therapy 15:18-23.
14. **Heitkemper MM**, Shaver JF, & Mitchell E. (1988) Gastrointestinal symptoms and bowel patterns across the menstrual cycle in dysmenorrheic and non-dysmenorrheic women. Nursing Research 37:108-113.
15. Simmons L, **Heitkemper MM**, & Shaver J. (1988) Gastrointestinal function during the menstrual cycle. Health Care for Women International 9:201-209.

16. **Heitkemper MM**, Miller J, & Shaver J. (1989) The effect of restricted liquid feeding on gastrointestinal parameters and adrenocortical variables in rats. Western Journal of Nursing Research 11(1):34-46.
17. **Heitkemper MM** & Shaver JF. (1989) Research opportunities in enteral nutrition. Nursing Clinics of North America 24:415-426.
18. **Heitkemper, MM** & Marotta SF. (1989) Restraint and glucocorticoid states on gastric neurotransmitter enzyme activities. Research Communication in Psychology, Psychiatry and Behavior 14:177-191.
19. Bond EF & **Heitkemper MM**. (1990) Thyrotropin releasing hormone stimulates intestinal transit in young rats. Regulatory Peptides 27:263-272.
20. **Heitkemper MM** & Bond EF. (1990) Age related variations in jejunum and distal colon response to thyrotropin-releasing hormone in vitro. Biology of the Neonate 58:8-15.
21. **Heitkemper MM**, Shaver JF, Bond EF, & Georges J. (1990) Menstrual cycle factors related to increased gastric contractile response to tube feeding. Journal of Parenteral and Enteral Nutrition 14:634-639.
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25. Larson E, Dear M, & **Heitkemper MM**. (1991) Trends in nursing research reflected in national conference abstracts. Image 23:167-170.
26. Bailey S & **Heitkemper M**. (1991) Morningness-eveningness related to early morning salivary cortisol levels. Biological Psychology 32:181-192.
27. **Heitkemper MM** & Jarrett M. (1992) Pattern of gastrointestinal and somatic symptoms across the menstrual cycle. Gastroenterology 102:505-513.
28. Westfall UE & **Heitkemper MM**. (1992) Systemic response to different enteral feeding schedules in rats. Nursing Research 41:144-150.
29. Bond EF, **Heitkemper MM**, & Gruver K. (1992) Mediation of TRH induced gastric motility increases in developing rats. European Journal of Pharmacology 217:127-136.
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32. Bond EF, **Heitkemper MM**, & Jarrett M. (1994) Intestinal transit and body weight responses to ovarian hormones and dietary fiber in rats. Nursing Research 43:18-24.

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39. **Heitkemper MM**, Levy R, Jarrett M, & Bond EF. (1995) Interventions for irritable bowel syndrome: A nursing model. Gastroenterology Nursing, 18:224-230.
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41. Johnson K, Garcia R, **Heitkemper M**, & Helton WS. (1995) Lipid supplementation increases norepinephrine excretion and bacterial translocation in parenterally fed rats. Surgical Forum. 46:23-25.
42. Jarrett M, Cain KC, **Heitkemper M**, & Levy R. (1996) Relationship between gastrointestinal and dysmenorrheic symptoms at menses. Research in Nursing and Health 19:45-51.
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44. Bond EF, **Heitkemper MM**, & Perigo R. (1996) Gastric emptying and gastric intestinal transit in rats with varying ovarian hormone status. Nursing Research 45:218-224.
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56. Schanler RJ, Shulman RJ, Lau C, Smith EO, & **Heitkemper MM**. (1999) Strategies for premature infants: randomized trial of initiation and method of feeding. Pediatrics 103:434-439.
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59. Whitney JD & **Heitkemper MM**. (1999) Therapeutic approaches to wound healing in critically ill patients: Heart & Lung 28:123-133.
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61. Brown MC, Prakash NM, Spelman FA, Read P, Nelson JA, **Heitkemper MM**, Tobin RW, Pope CE. (1999) Fluxgate magnetometry for measuring the frequency of gastric contractions. Digestive Diseases & Sciences: 44(9):1735-40.
62. Jarrett M, **Heitkemper MM**, Cain KC, Burr RL, & Hertig V. (2000) Sleep disturbance influences gastrointestinal symptoms in women with irritable bowel syndrome Digestive Diseases & Sciences 45(5):952-9.

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65. Bliss DZ, Guenter PA, **Heitkemper MM**. (2000) From proposal to publication: Are you writing research right? Nutrition in Clinical Practice 15:299-305.
66. **Heitkemper MM**, Jarrett M, Taylor P, Walker E, Landenburger K, & Bond EF. (2001) Sexual and physical abuse in women with irritable bowel syndrome. Nursing Research 50:15-23.
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68. **Heitkemper M** & Jarrett M. (2001) Gender Differences and Hormonal Modulation in Visceral Pain. Current Pain & Headache Reports 5:35-43.
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74. **Heitkemper MM**, Jarrett M, Kurashige, EM, & Carithers, R. (2001) Hepatitis C: Implications for quality of life. Gastroenterology Nursing 24:169-177.
75. Jarrett M, Visser R, **Heitkemper MM**. (2001) Diet triggers symptoms in women with irritable bowel syndrome: The patient's perspective, Gastroenterology Nursing 24(5):246-52)
76. **Heitkemper MM**, Olden K, Gordon S, Carter E, & Chang L. (2001) Irritable bowel syndrome: A survey of patients and nurses. Gastroenterology Nursing 24:281-287.
77. Lucak SL & **Heitkemper MM**. (2001) The experts discuss irritable bowel syndrome. Interview by Jodi Godfrey Meisler. Journal of Women's Health & Gender Based Medicine Apr 10(3):223-8.
78. Jarrett M, **Heitkemper MM**, Shulman RJ. (2002) Recurrent abdominal pain in children: Forerunner to IBS in adults. (In press Journal of Specialists in Pediatric Nursing).
79. **Heitkemper MM**, Jarrett MJ, & Bond EF. (2002.) Irritable bowel syndrome: More than a gut feeling. WOCN 29:202-209.

80. **Heitkemper M**, Elta G, Carter E, Ameen V, Olden K, & Chang L. (2002) Women with irritable bowel syndrome: Differences in patients' and physicians' perceptions. Gastroenterology Nursing, 25:192-200.
81. Chang L, **Heitkemper MM**. (2002) Gender differences in irritable bowel syndrome. Gastroenterology 123(5):1686-1701.
82. Motzer S, Jarrett M, **Heitkemper M**, & Tsuji J. (2002) Natural killer cell function in women with and without irritable bowel syndrome, Biological Research for Nursing 4:31-42.
83. **Heitkemper M**, Cain K, Jarrett ME, Burr R, Bond EF, & Hertig V (2003). Symptoms across the menstrual cycle in women with irritable bowel syndrome American Journal of Gastroenterology 98(2):420-30.
84. Jarrett M, Burr RL, Cain KC, Walker AE, Hertig, V & **Heitkemper MM** (2003). Anxiety and depression influence autonomic nervous system function in women with irritable bowel syndrome. Digestive Disease & Sciences, 48(2):386-94.
85. **Heitkemper MM** & Bond EF. (2003). Nursing Research: On the edge Biological Research for Nursing, 4:151-162.
86. Burr R, Motzer S, Cowan M, & **Heitkemper, MM**. (2003) LOGIT50: A nonlinear transformation of pNN50 with improved statistical properties. Journal of Electrocardiology 36:41-52.
87. **Heitkemper M**, Bond EF, Jarrett M, & Chang L. (2003) Impact of sex and gender on irritable bowel syndrome. Biological Research for Nursing 5(1):56-65.
88. **Heitkemper M** & Jarrett M. IBS and women. (In press, Digestive Diseases & Sciences).
89. Motzer S, Hertig V, Jarrett M, & **Heitkemper MM**. (2003) Sense of coherence and quality of life in women with and without irritable bowel syndrome. Nursing Research 52: 329-337.
90. **Heitkemper MM**, Jarrett ME, Bond EF: A common health problem: Irritable bowel syndrome in women (In press, Nursing Clinics of North America)
91. **Heitkemper M**, Cain K, Jarrett M, Crowell M, & Woods NF. Relationship of bloating to other GI and menstrual symptoms in women with IBS (In press, Digestive Diseases & Sciences)

#### **Submitted Manuscripts**

- Choe MA, An GU, Lee YK, Im JH, Choi SK, & **Heitkemper M**. Effect of inactivity and undernutrition following acute stroke on rat hindlimb muscle mass, myofibrillar protein content and type I, II fiber cross-sectional area (revised and resubmitted, October, 2003)
- Heitkemper MM**, Jarrett ME, Levy, RL, Cain KC, Burr RL, Feld A, Barney, & P, Weisman P: Self management for women with irritable bowel syndrome (Submitted, September, 2003)
- Heitkemper MM** & Croghan A. Recognizing and managing patients with IBS. (Submitted, December, 2003)

#### **Abstracts (selected 1994-2002)**

- Heitkemper MM**, Jarrett M, Bond E, Walker E, & Rockwell M. (1994) Increased sympathetic nervous system activity in women with IBS. Gastroenterology 106:A509.

- Bond EF & **Heitkemper MM.** (1995) Gastric emptying and transit in rats with varying hormone status. Gastroenterology, 108:A574.
- Johnson K, Garcia R, **Heitkemper MM**, & Helton S. Lipid supplementation increase norepinephrine excretion and bacterial translocation in parenterally fed rats. Surgical Forum.
- Bond EF, **Heitkemper MM**, & Bailey SL. (1996) Ovarian hormone modulation of basal and stimulated gastric motility in rats. Proceedings, ANA Council for Nursing Research Scientific Sessions 144.
- Bond EF, **Heitkemper MM**, & Bailey SL. (1996) Estrogen treatment suppresses gastric motility response to stress and thyrotropin-releasing hormone (TRH) in rats. Digestive Diseases and Sciences 41:1880.
- Prakash M, Spelman FA, **Heitkemper MM**, Nelson JA, Read P, Rothermel J, & Pope II CE. (1996) Measurement of gastric motility in humans: Comparison of compass and manometry. Digestive Diseases and Sciences 41:1894.
- Burr R, **Heitkemper M**, Jarrett M, Hertig V. & Perigo R. (1998) Circadian patterns of vagal tone in women with irritable bowel syndrome. Comm Nur Res 31:234.
- Heitkemper M**, Burr R, Jarrett M, Lustyk MK, Hertig V, & Bond E. (1998) Lower vagal tone during sleep in women with irritable bowel syndrome. Gastroenterology A3148.
- Jarrett M, **Heitkemper M**, Burr R, Levy R, Lustyk MK, & Hertig V. (1998) Social desirability influences self-reported gastroenterology and psychosocial symptoms in women with irritable bowel syndrome. Gastroenterology 114: A3180.
- Jarrett M, **Heitkemper M**, Hertig V, Burr R, Levy R, & Cain, KC. (1999) Alternative health care practices in women with irritable bowel syndrome. Gastroenterology 116:A1012.
- Heitkemper M**, Burr R, Jarrett M, & Cain, KC. (2000) Abdominal Pain Intensity and post-prandial pain are associated with cardiac measures of autonomic nervous system activity in women with IBS. Neurogastroenterology & Motility 12: 388.

### **Editorials**

- Bond EF & **Heitkemper MM.** (1987) The importance of basic physiologic research in nursing science. Heart & Lung, Solicited Editorial 16:347-349.
- Heitkemper MM.** (1992) Research and the ET Nurse. Editorial, Journal of Enterostomal Therapy 19:82-83.
- Heitkemper M** & Jarrett MJ. Sleep: Big brain meets little brain. Editorial, Sleep Medicine Reviews 5:87-89, 2001)
- Heitkemper M** & O'Neil P. A Perfect Marriage of Two Pioneers. Nursing Research (In press, 2001)
- Bond EF & **Heitkemper MM.** (2001) Physiological Nursing Science: Emerging Directions. Research in Nursing Research & Health 24:345-348.



### **Monographs**

Yuzpe AA, Brown C, & **Heitkemper M**. Beyond Contraception – Enhancing the Quality of Life, 2002.

### **Newsletters**

**Heitkemper M** & Jarrett M. (2001) Gynecological aspects of irritable bowel syndrome. Participant 10:6-7.

### **Book Chapters**

**Heitkemper MM**. (1993) Gastrointestinal problems. In Carnevali, D. & M. Patrick (Eds.), Nursing management of the elderly (3rd ed.) Philadelphia: J.B. Lippincott.

In M. Patrick, S. Woods, P. Bruno, R. Craven, and J. Rokosky (Eds.) (1986) Medical-surgical nursing. Philadelphia: J.B. Lippincott.

**Heitkemper MM**. Ch. 80: Nursing strategies for common gastrointestinal problems: Nursing diagnosis, interventions, and evaluation.

**Heitkemper MM** & Martin D. Ch. 82: Infectious, immunological, and other inflammatory disorders of the gastrointestinal system.

**Heitkemper MM** & Simmons L. Ch. 83: Ulcers of the gastrointestinal tract.

Shaver JF & **Heitkemper MM**. (1988) Using biological measures. In N.F. Woods & M. Catanzaro (Eds.), Nursing research theory and practice (Ch. 16) St. Louis: C.V. Mosby Co.

In S. Underhill, S. Woods, E.S. Froelicher, & C.J. Halpenny (Eds.) (1989) Cardiac nursing (2nd ed.) Philadelphia: J.B. Lippincott.

Shaver JF & **Heitkemper MM**. Energy balance and metabolism (pp. 140-145)

**Heitkemper MM** & Shaver JF. Eating disorders: Anorexia, bulimia, and obesity (pp. 1038-1043)

In M Patrick, S Woods, P Bruno, R Craven, and J Rokosky (Eds.) (1991) Medical-surgical nursing (2nd ed.) Philadelphia: J.B. Lippincott.

**Heitkemper MM**. Chapter 79: Review of anatomy and physiology: Gastrointestinal system.

**Heitkemper MM** & Brubacher L. Chapter 81: Nursing strategies for common gastrointestinal problems: Nursing diagnosis, interventions, and evaluation.

**Heitkemper MM** & Martin D. Chapter 83: Infectious and inflammatory gastrointestinal disorders.

Simmons L & **Heitkemper MM**. Chapter 84: Ulcers of the gastrointestinal tract.

**Heitkemper MM** & Power D. (1991) Management of men with reproductive problems. In Phipps, Long and Woods, Medical-surgical nursing: concepts and clinical practice. St. Louis: C.V. Mosby. 1641-1655.

**Heitkemper MM** & Westfall E. (1992) Gastrointestinal physiology. In Clochesy, Breu, Cardin, Rudy, and Whittaker (Eds.), Critical care nursing. Philadelphia: W.B. Saunders Company. p. 929-944. Revised for 2nd edition, 1996.

**Heitkemper MM**. (1996) Living with a spouse with cancer. In S.B. Baird, R. McCorkle, & M. Grant (Eds.) Cancer Nursing (2<sup>nd</sup> Ed) Philadelphia: W.B., Saunders Company. p 899-901.

**Heitkemper MM**. (1997) Research in enteral and parenteral nutrition. In Hennessy and Orr (Eds.) Nutrition Support Nursing: Core Curriculum. 3<sup>rd</sup> Ed. ASPEN, p 27.1-27.5.

**Heitkemper MM.** (1999) Managing nausea and vomiting. In Hinshaw, Feetham, & Shaver. Handbook of Clinical Nursing Research. Newbury Park, CA: Sage.

**Heitkemper MM.** (2000) Physiology of Defecation. In Doughty DB. Urinary and fecal incontinence: Nursing management. St. Louis, MO: Mosby-Year Book.

Bond E F & **Heitkemper MM.** Protein Calorie Malnutrition. In AM Lindsey, V Carrieri-Kohlman, C M West (Eds.) (in press for 2003) Pathophysiological Phenomena In Nursing : Human Responses To Illness (3rd edition) Philadelphia: W. B. Saunders.

Naliboff B, **Heitkemper MM**, Chang L, & Mayer E. Sex and gender in irritable bowel syndrome, In Fillingim BD, ed. Sex, Gender, and Pain: Progress in Pain Research and Management, Seattle, IASP Press, 2000:327-353.

### **Books**

Lewis S, Collier I, & **Heitkemper MM.** Medical Surgical Nursing: Assessment and Management of Clinical Problems (4th Ed.) Mosby Year Book Publishers. 1996.

Chapters: **Heitkemper MM** & Elrod, R. Problems of ingestion  
**Heitkemper M** & Sawchuck L. Problems of absorption and elimination

Lewis S, **Heitkemper MM** & Dirksen S. Surgical Nursing: Assessment and Management of Clinical Problems. (5<sup>th</sup> Ed) Mosby, 1999.

Lewis S, **Heitkemper MM** & Dirksen S. Surgical Nursing: Assessment and Management of Clinical Problems. (6<sup>th</sup> Ed) Hartcourt, 2004.

Hampton JK Jr, Craven R, & **Heitkemper MM.** (1996) The Biology of Human Aging (2nd Ed) Wm. C. Brown Publishers, Dubuque, Iowa.

### **RESEARCH (funded):**

"The Effects of Volume and Rate of Intra-Gastric Infusions on Gastric Motility in Normal Human Subjects," Master's thesis, University of Washington School of Nursing, Seattle, Washington. December 1975.

Research Associate on "Nursing Interventions in Problems of Tube Feeding," NIH Grant NU00523. Barbara Walike Hansen, Ph.D., Principal Investigator (1975-1977), University of Washington, Seattle, Washington.

"Stress and the Developmental Activity of Gastrointestinal Neurotransmitter Enzymes," Doctoral Dissertation, University of Illinois at the Medical Center, Chicago, Illinois. December 1981.

"Effect of Glucocorticoids on Gastrointestinal Neurotransmitter Enzyme Activity," Source: Biomedical Research Support Grant, University of Washington, School of Nursing, Seattle, Washington. 1982.

"Development of Neurotransmitter Enzyme Activities in the Non-human Primate Gut." Source: Biomedical Research Support Grant, University of Washington, School of Nursing, Seattle, Washington. 1982.

"Regulation of GI Neurotransmitter Enzyme Activities," NIADDK, New Investigator Award. 1983-1986.

"The Effect of Periodic Ethanol Ingestion on Maternal Serum and Placental Progesterone Production in the Pig-tailed Macaque." Source: Alcohol and Drug Abuse Institute, University of Washington, Co-investigator, Joan Shaver Ph.D., principal investigator. 1983-1984.

"A Nursing Study of Gut Function in Menstruating Women." Principal Investigator, September 1984-1987. National Center for Nursing Research, NIH, Competitive Renewal, 1987-1990 and 1991-1996.

"Perimenstrual Symptoms: Biopsychosocial Dimensions." National Center for Nursing Research, NIH, Co-investigator. Nancy Woods, Principal Investigator, 1% effort. 1987-1990.

"Regulation of Gastrointestinal Neurotransmitter Enzyme Activities." Source: Biomedical Research Support Grant, University of Washington, School of Nursing, Seattle, Washington. 1986.

"Central Control of Gastrointestinal Function." Academic Investigator Award, National Center for Nursing Research, NIH. 1987-1992.

"Nursing Study of Perimenopause Insomnia." USPHS Nursing Research, Co-Investigator. Joan Shaver, Ph.D., Principal Investigator. 3% effort. 1987-1996.

"Predicting the Insertion Length of Gastric Gavage Tubes." School of Nursing, Indiana University, Indianapolis, Indiana. Jan Beckstrand, Ph.D., Principal Investigator. Consultant.

Center for Women's Health Research. National Center for Nursing Research. Nancy Woods, Ph.D., Principal Investigator. 1989-1994. "Intestine Response to Ovarian Hormones in Dietary Fiber." Co-Investigator. Eleanor Bond, Ph.D., Principal Investigator. "Symptoms and Stress Responsivity in Mid-life Women." Co-Investigator. Joan Shaver, Ph.D., Principal Investigator.

"The Effects of *in utero* Morphine Exposure on Gut Maturation." Alcohol and Drug Abuse Institute, University of Washington, Seattle. Co-Investigator. Eleanor Bond, Ph.D., Principal Investigator. 1990-1991.

"Feeding Strategies for Low Birth Weight Infants." Co-Investigator. Richard Schanler, M.D., Principal Investigator. 2% effort. NICHD, 2/1/92-1/31/97.

"5-HIAA Levels in Women with IBS." Funded by Glaxo Pharmaceuticals. January 1994-.

Center for Women's Health Research, NINR, Nancy Woods, Ph.D., Principal Investigator. 1994-1999. Director, Biobehavioral Laboratories.

"Ovarian hormone modulation of serotonin levels" RO-3 NINR, NIH 1993-1995.

"Surgery and IV nutrition modulate macrophage function" Consultant. Scott Helton, M.D., Principal Investigator. 1995-2000, NIDDK, NIH.

"Irritable bowel: A nursing study of symptoms and coping." Military Nursing Research Program. Co-investigator, E. Bond, Ph.D., Principal Investigator, 1994-1995.

"Ovarian hormone modulation of smooth muscle". KO-7, NINR, NIH, Co-sponsor. Eleanor Bond, Ph.D., Principal Investigator, 1995-1998.

“Non-invasive gut motility monitors” Washington Technology Center Grant. Co-investigator. F. Spelman, Principal Investigator, 1994-1996

“ANS arousal in women with IBS” Principal Investigator. 1995-1999. NINR, NIH

“Patient outcomes: Nursing management of IBS”, Principal Investigator. 1996-2003. RO-1 NINR, NIH

“Center for Women’s Health Research”, Principal Investigator, 1999-2004, NINR, NIH P30.

“ANS function in men with IBS”, Principal Investigator, 1999, Glaxo-Wellcome

"A Nursing Study of Gut Function in Menstruating Women." Principal Investigator, R0-1, NIH NINR. 2000-2004.

“Integrating CAM: Nursing Emphasis.” NIH-NCCAM R25, 2002-2006.

#### Training Grants:

"Graduate Family Nurse Practitioner." Division of Nursing. Marie Annette Brown, Project Director. 5% effort, 1985-1988.

"Clinical Research Training: Psychophysiologic Interface." Division of Nursing. Helen Kogan, Project Director. 5% effort, 1985-1995.

"Women's Health: Nursing Research Training." National Center for Nursing Research. Nancy Woods, Project Director. 5% effort, 1987-2000.

"Advanced Care of Older Adults Nursing Program." Bureau of Health Professions. Margaret F. Dimond, Project Director. 2% effort, 1991-1994.

“Advanced Practice in Infectious Diseases” Bureau of Health Professions, Principal Investigator, 10% effort, 2001-2004.

#### **AWARDS, HONORS, SPECIAL RECOGNITION:**

1970	Lion's Club Language Arts Award, Lower Columbia Community College
1973	Magna cum laude, Seattle University
1974-1975	U.S. Public Health Service Traineeship
1977-1981	U.S. Public Health Predoctoral Fellowship
1990	Elected Fellow, American Academy of Nursing
1991	Seattle University Centennial Alumni Award
1992	Excellence in Teaching Award, School of Nursing, University of Washington
1994	<u>Gastroenterology Nursing</u> , Editors Choice Award
1994	Excellence in Teaching Award, School of Nursing, University of Washington
1994	University of Washington Distinguished Teacher
1996	Rheba de Tornyay Excellence in Undergraduate Teaching Award, School of Nursing, University of Washington
1996	President’s Award, Wound, Ostomy, & Continence Nurses Society
1998	WIN Distinguished Research Lectureship Award, Western Institute of Nursing Seattle University School of Nursing Alumna Award
2000	Distinguished Alumna of 2000, UW School of Nursing
2001	Staff Advisory Council Sandra J. Eyres Faculty Appreciation Award

2002	ASPEN Nutrition Support Nurse of the Year.
2001-2003	Robert Woods Johnson Nurse Executive Fellow
2003	American Gastroenterological Association and Janssen Award for Clinical Research in Gastroenterology

#### **REVIEW COMMITTEES:**

1984-1986	National Research Service Award. Ad Hoc Fellowship Review Committee, Division of Nursing.
1986-1991	National Research Service Award Review Committee. National Center for Nursing Research, NIH.
1987-1989	Scientific Review Committee. American Nurses Foundation.
1991-	Ad hoc Reviewer, American Nurses Foundation
1991-1993	Ad hoc Reviewer, Nursing Research Study Section, NIH
1992	Chair, NCNR Site Visit Team
1993-1997	Scientific Review Committee, Nursing Science, NIH
1993-1998	ASPEN Research Foundation Grant Review Committee
1993	Ad hoc Committee Chairperson, NINR review of RO-3 (Biological Interface) grants
1994, 1996-1998	Ad hoc Committee Chairperson, DRG review of AREA awards, NIH
1997, 1998	Ad hoc Committee Chairperson, SBIR review, NINR
1997-2003	Triservice Military Nursing Grants, reviewer
1998, 2002	Ad hoc Committee, SWAN review, NIA, NIH
1998-2001	Nursing Science Review Committee, NIH
1999-2001	Chairperson, Nursing Science Review Committee, NIH
2000	Ad hoc Committee, NINR Intramural Program Review Committee
2002	CSR, NIH, ad hoc reviewer SCOR grants

#### **PROFESSIONAL AND ACADEMIC MEMBERSHIP:**

Sigma Theta Tau	
American Nurses Association	
American Academy of Nursing	
2001: Nominating Committee	
Washington State Nurses Association	
Council of Nurse Researchers	
American Society of Parenteral and Enteral Nutrition	
1991	Research Foundation Study Committee
1991	Research Subcommittee, Nurses Committee

1992-1994	Nurses Committee
1992-1998	Research and Data Committee
1994	Nominations Committee
1995-1998	Research and Data Committee Chairperson
1998-1999	Executive Committee, Secretary & Nurses' Committee Chair

International Association of Enterostomal Therapists, now WOCN  
Member  
National Advisory Board  
Research Committee  
American Motility Society  
Society for Gastroenterological Nurses  
1994 Research Committee  
Friends of the National Institute for Nursing Research (FNINR)  
1997 Board member  
1998-2000 Secretary  
American Gastroenterological Association

#### **EDITORIAL REVIEWS:**

Research in Nursing and Health  
Nursing Research  
Nutrition in Clinical Practice  
Heart & Lung  
Gastroenterology  
American Journal of Gastroenterology  
Nursing Outlook  
American Journal of Physiology

#### **EDITORIAL BOARDS:**

Research in Nursing and Health  
Journal of Parenteral and Enteral Nutrition (JPEN)  
Biological Research for Nursing  
Nursing Research

#### **CONSULTATION:**

1983-1987	Marionwood Geriatric Center Committee. Health and Hospital Services, Bellevue, WA
1985-1990	International Association for Enterostomal Therapy (Wound, Ostomy & Continence Nurses), National Advisory Board, Research Committee, and Blueprint Steering Committee
1987	University of Kentucky, School of Nursing.
1990	University of Texas at Austin, School of Nursing.
1993	University of Texas, Medical Branch at Galveston School of Nursing
1994	University of Pittsburgh, School of Nursing
1997	Rush University, School of Nursing
1998	Glaxo-Wellcome
1999	Glaxo-Wellcome Regional IBS Advisory Group
2000	University of Illinois at Chicago, School of Nursing
2001	South Florida University School of Nursing
2002	University of Texas, San Antonio, Texas
2003	Novartis IBS Advisory Board
	University of Florida, Gainesville, Florida

#### **PRESENTATIONS, CONFERENCES, WORKSHOPS: (from 1995 only)**

- 1995                    “How to Get Started in Research.” ASPEN Clinical Conference, Miami, Florida (January)
- “The Gut Response: Assessment and Management of Irritable Bowel Syndrome.” 1995 Primary Care Series for Nurse-Midwives, University of Washington School of Nursing Continuing Education, Seattle, Washington. (February)
- “New Treatment for Gastroesophageal Reflux Disease.” University of Washington School of Nursing, Continuing Nursing Education Adult Drug Therapy, Seattle, Washington. (May)
- 1996                    “Functional GI Problems in Older Adults” Northwest Conference for Nurse Practitioners in Gerontology, Seattle, Washington. (March)
- “Ambulatory-Focused Clinical Assessment: Gastrointestinal Symptoms” 1996 Ambulatory Care Conference, Seattle, Washington (April)
- “Nurses Role in Irritable Bowel Syndrome” Society for Gastroenterological Nurses and Associates Annual Conference, Las Vegas, Nevada (May)
- “Pharmacological Management of Common GI Problems in Women” Women’s Health Nurse Practitioners Conference, UW CNE, Seattle, Washington (May)
- “Generating New Knowledge for ET Nursing Practice” Wound, Ostomy and Continence Nursing Association National Conference, Seattle, Washington (June)
- “Irritable Bowel Syndrome” Primary Care Conference, UW CNE, Seattle, Washington (October)
- 1997                    “Recent Research on IBS in Women” Continence Conference, WOCN, Beverly Hills, CA (January)
- “Establishing a Research Based Practice” Continence Conference, WOCN, Beverly Hills, California (January)
- “Outcomes Research in Nutrition Support” ASPEN, Clinical Congress, San Francisco, CA (January)
- “Nutrition Services and Quality of Care Issues” Panel member. Sponsored by Food and Nutrition Board/Institute of Medicine, Washington DC (March)
- 1998                    “Physiological Changes in Aging”, Regional Conference for Occupational Therapy and Physical Therapy, Seattle, WA (February)
- “A Biopsychosocial Model of IBS”, Communicating Nursing Research. WIN Distinguished Nurse Researcher Lecturer.
- 1999                    Research Roundtable, American Society of Parenteral and Enteral Nutrition, San Diego, California (January, 1999)
- University of Alabama, Birmingham, Nurse School Day. “Clinical Research: Implications for Practice” (May, 1999)

University of Illinois Medical Center College of Nursing. "Building a Program of Research" (April, 1999)

American College of Nurse Practitioners. "In's and Out's of Irritable Bowel Syndrome" (Nashville, TN, October, 1999)

Society for Women's Health Research; 9<sup>th</sup> Annual Scientific Advisory Meeting. "Irritable Bowel Syndrome: Why Women" (Washington DC, October)

American Heart Association, Cardiovascular Nurses. "Keys to Successful Grantsmanship" (Atlanta, GA, November)

1<sup>st</sup> Pan-Asian Conference on Women's Health. "Women's Health: A Global Perspective" (Seoul, South Korea, December)

2000

American Society of Parenteral and Enteral Nutrition. "Writing a Research Proposal" (Nashville, TN, January)

Providence Medical Center Medical Rounds. "Rethinking IBS" (Seattle, WA, March)

Congressional Briefing. "Chronic Health Problems of Women" (Washington, DC, March)

Women's Health Congress. "Irritable Bowel Syndrome: Why Women" (Hilton Head, SC, June)

Thurston County Nurse Practitioners. "Update on IBS" (Olympia, WA)

University of Alabama, Birmingham. "Stress and its Measurement" (Birmingham, AL, June)

American Association of Hispanic Nurses. "Women's Health Care Issues for the 21<sup>st</sup> Century" (Washington DC, July)

American Association of Nurse Practitioners. "Irritable Bowel Syndrome: New Advances" (Washington, DC, July)

Legacy Health Care System, Lorenzan Series Lecturer "Women's Health Research" (Portland, OR, September)

Council of State Governments "Irritable Bowel Syndrome" (San Diego, CA, October)

Providence Medical Center Noon-Time Rounds "Irritable Bowel Syndrome: A New Look at an Old Problem" (Portland, OR, October)

Sigma Theta Tau, University of Pittsburgh "Mentoring the Next Generation of Nurse Scientists" (Pittsburgh, PA, October)

Seoul National University. "The Future of Biobehavioral Research in Nursing" (Seoul, South Korea)

Tacoma and Spokane, Washington "Women's Health" (presentation for lay audience)



2001

American Society for Parenteral and Enteral Nutrition. "The Brain-Gut Connection in Irritable Bowel Syndrome" (Chicago, IL, January)

Sigma Theta Tau, Delta Beta Chapter. "Biobehavioral Research in the 21<sup>st</sup> Century (Tampa, FL, March)

Center for Symptom Management, UCSF School of Nursing. "Biological Markers in Nursing Research: Fact or fiction" (San Francisco, CA, March)

International Foundation for Functional Gastrointestinal Disorders. "Does Gender Make a Difference in Treatment" (Milwaukee, WI, March)

Wound, Ostomy & Continence Society, "Irritable Bowel Syndrome: More than a Gut Feeling" (Portland, OR, June)

Women's Health Congress, "Irritable Bowel Syndrome or Inflammatory Bowel Disease." (Washington, DC, June)

National Institute of Nursing Research, "Developing a Program of Research" and "The Peer Review Process" New Investigator Training (Washington, DC, July)

"Optimizing Clinical Benefits with Hepatitis C Therapy" Continuing Nursing Education (Los Angeles, California, August)

"Irritable Bowel Syndrome-Why Women" Women's Health, University of Kentucky (Lexington, Kentucky, October)

"Irritable Bowel Syndrome –Implications for Practice" Group Health Nurse Practitioners (Seattle, WA, November)

"Physiology of Stress and CVD Risk" American Heart Association: Council of Cardiovascular Nurses (Anaheim, California, November)

2002

"Biobehavioral Nursing Research in the 21<sup>st</sup> Century" Loyola University School of Nursing (Chicago, Illinois, March)

"Impact of Gender on Irritable Bowel Syndrome" 3<sup>rd</sup> Gender-specific Medicine Conference (Washington, DC, April)

"Gastroesophageal Reflux Disease: The Common Cold of the New Millennium" Society for Women's Health (Hilton Head, South Carolina, May)

"Visceral and Somatic Pain in Women" 13<sup>th</sup> International Congress on Women's Health Research (Seoul, South Korea, June)

National Institute of Nursing Research, NIH "Developing a Program of Research" and "The Peer Review Process" New Investigator Training (Washington, DC, July)

"Nursing Science: On the Edge" Keynote address, State of the Science Conference (Washington DC, September)

"Psychosocial Aspects of Irritable Bowel Syndrome." Gastroenterology for Primary Care, CME, University of Washington (Seattle, November)

2003

“Psychosocial Issues in IBS”, Virginia Mason Medical Center, GI Nursing CNE, (Seattle, March)

Gender and Gastrointestinal Functioning. International Foundation for Functional Bowel Disorders (Milwaukee, April)

“IBS: From the Bench to Clinical Trials Research” University of Florida College of Nursing (Gainesville, FL, April).

“IBS: Behavioral Management Strategies” Primary Care Conference, CME, University of Washington (Seattle, WA, September)